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ADDING ECHO ABNORMALITIES TO CHADS2 SCORE PREDICTS 97.5% OF STROKES THAT OCCUR IN PATIENTS WITH ATRIAL FIBRILLATION

ACC Poster Contributions
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Background: In order to determine which patients with atrial fibrillation (Afib) would benefit most from anticoagulation with warfarin to prevent strokes, various clinical schema have been devised using data derived from prospective studies of patients with Afib randomized to warfarin or no warfarin. Since stroke occurs in only approximately 5-7% of nonanticoagulated patients per year the number of patients who had strokes in the published studies is relatively modest. One of the most accepted schema has been the CHADS2 (CHF, hypertension, age>74, diabetes, strokeX2) with patients scoring >/=2 felt to require anticoagulation with warfarin. Echo criteria were not used to improve the predictive success. The primary objective of this study is to determine the value of adding echo abnormalities (LA>/=4.0, LV>/=5.6, ejection fraction<50%) in predicting stroke in patients with Afib.

Methods: We studied 372 patients with Afib documented on admission or during the stroke admission culled from 1633 patients with ischemic stroke admitted from 2003-2008; 276 pts with Afib had sufficient data to calculate their CHADS2 score prior to the stroke admission and 243 had echo data.

Results: CHADS2 was >/=2 in 245 patients (88.8%, 95% confidence limits 85.03, 92.51). At least one echo abnormality was present in 192 of the 243 Afib pts with echo data (79.02%, CL 73.90, 84.14). Of 217 patients with CHADS2 >/=2 , 172 had echo abnormalities; and 172 of 192 with echo abnormalities had CHADS2>/=2. Thus 20 patients with echo abnormalities did not have abnormal CHADS2 scores. Of the 243 pts with both CHADS2 and echo data 237 (97.53%, CL 95.58, 99.48)had abnormalities of CHADS2 or on echo and only 6 pts (2.5%) had neither CHADS2 or echo abnormalities.

Conclusion: These findings confirm that CHADS2 >/=2 prior to stroke is commonly present in Afib patients who go on to ischemic stroke. Adding echo abnormalities increases the predictive accuracy in determining which Afib patients might benefit from anticoagulation.